

Pneumatic Tools

Riveting Hammers, Sizes and Capacities

"Little David" Riveting Hammers are supplied in 5 sizes according to the table below. They are used in over 175 shipyards in the U. S. A. Their maintenance cost is very low.



"LITTLE DAVID" RIVETING HAMMERS

Size No.	Piston Stroke	Piston Diam.	Length Exclusive of Set	Standard Piston	Weight (With-out Set)	Size Hose Connection	Size of Hose Recommended	Air Consumption Cu. Ft. Free Air Per Min.
5	4"	1 1/8"	14 3/4"	3"	14 lbs.	1/4"	1/2"	19
50	5"	1 1/8"	16 3/4"	3"	18 lbs.	1/4"	1/2"	20
60	6"	1 1/8"	17 3/4"	3"	20 lbs.	3/8"	1/2"	20
80	8"	1 1/8"	19 3/4"	3"	22 lbs.	3/8"	1/2"	21
90	8"	1M	19 3/4"	3 1/2"	24 1/2 lbs.	3/8"	1/2"	21

Riveting Hammers Styles of Handle

The standard open handle is supplied on all riveting hammers unless one of the other styles shown is specified.



Closed Handle Inside Trigger



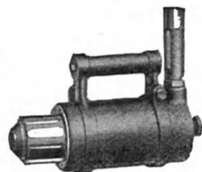
Inverted Handle



Closed Handle

"Little David" Jam Riveters

A sturdy tool for use in confined spaces.



"LITTLE DAVID" JAM RIVETERS

Size No.	Piston Stroke	Piston Diam.	Length Exclusive of Set	Standard Piston	Weight (With-out Set)	Size Hose Connection	Size of Hose Recommended	Air Consumption Cu. Ft. Free Air Per Min.
0	4"	1 3/4"	10"	2 1/2"	30 lbs.	3/8"	1/2"	35
1	5"	1 3/4"	11 3/8"	3"	32 1/2 lbs.	3/8"	1/2"	35

"Little David" Holder On

For backing up rivets; uses very little air and relieves operator of strain.



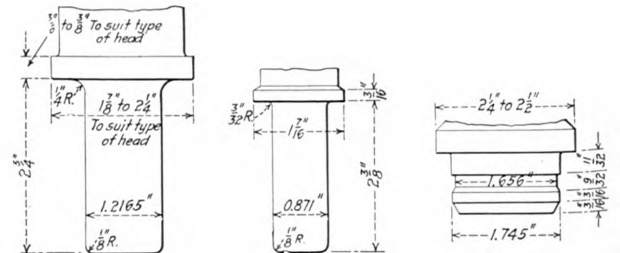
"LITTLE DAVID" HOLDER-ON

Size No.	Piston Stroke Inches	Piston Diam. Inches	Length Exclusive of Set	Weight (With-out Set) Pounds	Size Hose Connection Inches	Size of Hose Recommended Inches	Length Closed Inches	Distance from Side to Center of Rivet Set
2	3	3 1/4"	7 1/4"	13 1/2	3/8"	1/2"	9	1 3/4
4	4 1/2	3 1/4"	12 1/4"	26	3/8"	1/2"	14 1/2	1 1/8
5	4 1/2	3 3/8"	12 1/4"	25	3/8"	1/2"	14 1/2	1 1/8

Dimensions of Rivet Set Shanks

The drawings below give dimensions for rivet set shanks for all "Little David" Hammers, for the convenience of those purchasers who desire to make their own rivet sets.

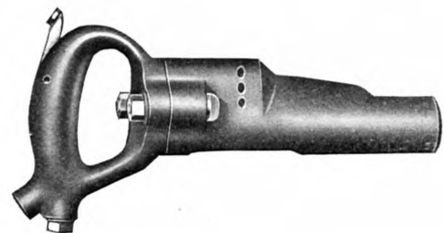
We can supply complete rivet sets for any type of work.



Standard Dimensions of Rivet Set Shanks for "Little David" Riveters

"Little David" Chipping and Calking Hammers

These sturdy tools are used in shipyards and foundries throughout the country. Their low maintenance cost and sturdiness make them standard where they are once used.



"LITTLE DAVID" CALKING AND CHIPPING HAMMERS

Size No.	Piston Stroke	Length Over-all	Weight Pounds	Size Hose Connection	Size Hose Recommended	Air Consumption Cu. Ft. Free Air Per Min.
N1	1 1/4"	10 3/4"	7	1/4"	1/2"	7
1S	1"	11 1/4"	11 3/4	1/4"	1/2"	15
2S	2"	12 1/4"	12 3/4	1/4"	1/2"	16
2SS	2"	12 1/4"	12 3/4	1/4"	1/2"	14
3S	3"	13 1/4"	13	1/4"	1/2"	17
4S	4"	14 1/4"	13 3/4	1/4"	1/2"	18
5	4"	14 1/2"	14 1/4	1/4"	1/2"	19

"Little David" Calking Machine

The "Little David" Calking machine affords a great saving over hand work and is especially useful in deck-calking on steel ships.



"LITTLE DAVID" CALKING MACHINE

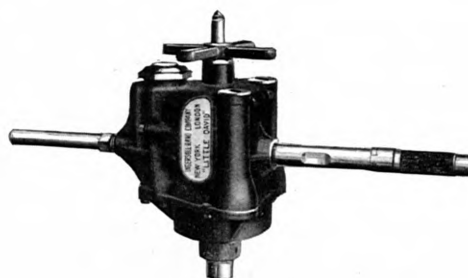
Size No.	Speed Tacks per Minute	Weight Lbs.	Length	Air Consumption Cu. Ft.
23	1500	13 1/2	22"	20

INGERSOLL-RAND CO., 11 BROADWAY, N. Y.

Pneumatic Tools

"Little David" Drills

The unusually small number of parts used in this drill and their wide interchangeability have created for the "Little David" a large and growing demand. The maintenance cost is very low and the air economy remarkably high. The wide range of sizes and gear ratios is listed below.



"LITTLE DAVID" NON-REVERSIBLE DRILLS

Size No.	Average Free Speed 90 lbs. Pressure R.P.M.	Weight Lbs.	Length of Feed Inches	Reaming Inches	Tapping Inches	Flue Rolling Inches	Standard Twist Drill will Drive	Length over-all Inches	Morse Taper Socket	Hose Inches	Cu. Ft. Free Air per Min.	Distance from Side to Center of Spindle
1B	240	55	5½	2	2		2¼	16	4	¾	55	4¾
1C	210	55	5½	2½	2½		3	16	4	¾	55	4¾
1SE	100	68	5½	Extra Heavy Drilling, Reaming and Tapping				19½	5	¾	55	4¾
2	450	41	4¾	1	1		1¼	14½	3	¾	50	3½
2S	450	43	4¾	1	1		1¼	15	4	¾	50	3½
2SC	310	43	4¾	1¼	1¼		1½	15	4	¾	50	3½
3AA	900	23	4¾	¾	¾		1½	11¾	2	¾	55	3
3AAA	900	24	4¾	¾	¾		1½	12½	3	¾	55	3
3	700	23	4¾	¾	¾		1½	11¾	2	¾	30	3
3S	700	24	4¾	¾	¾		1½	12½	3	¾	30	3
3SB	325	25	4¾	1	1		1¼	13½	3	¾	30	3
3SC	200	25	4¾	1	1		1¼	13½	3	¾	30	3
5	900	15	2½				¾ Chuck	14¾	1	½	25	1½
44	1400-3000	10						14¾		½	17	2½

"LITTLE DAVID" CLOSE QUARTER DRILL

9	170	37	3¾	2	2		3	9	4	¾	35	1¾
	250	32	2¾	1¼	1¼		1¼	8	3			

"LITTLE DAVID" REVERSIBLE DRILLS

11B	240	55	5½	2	2	3½	2¼	16	4	¾	55	4¾
11C	210	55	5½	2½	2½	4	3	16	4	¾	55	4¾
11SE	100	68	5½	Extra Heavy Reaming, Tapping and Flue Rolling				9½	5	¾	55	4¾
22	400	41	4¾	1	1	2½	1¼	14½	3	¾	50	3½
22S	400	43	4¾	1	1	2¼	1¼	15	4	¾	50	3½
22SC	275	43	4¾	1¼	1¼	3	1½	15	4	¾	50	3½
33	575	23	4¾	¾	¾		1½	11¾	2	¾	30	3
33S	575	24	4¾	¾	¾		1½	12½	3	¾	30	3
33SC	175	25	4¾	1	1		1¼	13½	3	¾	30	3

"LITTLE DAVID" GRINDER

7	3000	22		Diam. of Wheel-end of crank shaft ⅝"			20½		¾		3¼
601	4200	14		Diam. of Wheel-end of crank shaft ½"			18½		½		2¾

"LITTLE DAVID" PNEUMATIC SAW

7	3000	21		Diameter of Saw-End of crank shaft ⅝"			20¾		¾		3¼
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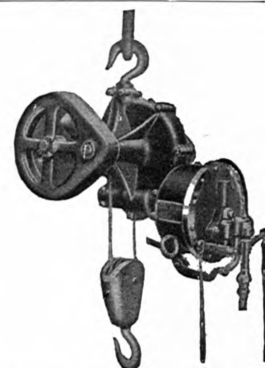
"Little David" Wood Borers

These are similar in construction to the drills and are equipped with wood bit chuck and spade handle or breast-plate.



"Little David" Air Motor Hoists

Sure and safe, quick acting, and air cushioned. The air consumption is low. Made in 5 sizes as listed.



"LITTLE DAVID" WOOD BORERS

Size No.	Average Free Speed 90 lbs. Pressure R. P. M.	Weight Lbs.	Size of Wood Bit will Drive	Length Over-all	Hose	Cu. Ft. Free Air per Min.	Dist. from Side to Center of Spindle
22WB	400	41	4	17½"	¾"	50	3¾"
13	900	20	2	15½"	¾"	30	3"
15	900	15	1	14½"	½"		1½"

"LITTLE DAVID" AIR MOTOR HOISTS

Size No.	Capac. Lbs.	Feet Lift per Min. 80 lbs. Pressure	Maxim. Lift, Feet	Size and Length Wire Rope	Size of Motor	Cu. Ft. Free Air per Min.	Net Weight Lbs.
1	1000	32	20	¼" x 42'-10"	4	45	270
2	2000	16	20	¼" x 42'-10"	4	45	270
4	4000	8	20	½" x 42'-10"	4	45	395
7	7000	8	20	¾" x 96'-6"	10	80	785
10	10000	7	20	¾" x 96'-6"	10	80	785

INGERSOLL-RAND CO., 11 BROADWAY, N. Y.

Air Compressors

In General

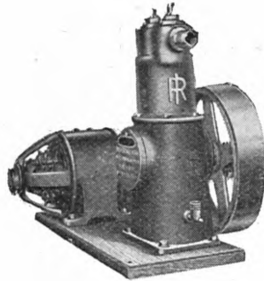
The type of air compressing equipment favored in different shipyards varies widely, but among the many compressor types of Ingersoll-Rand manufacture you will find just the machine for your individual requirement. Each unit is designed and built to supply some one demand most efficiently and economically. Designs are of time-proven soundness, materials selected with care and workmanship the best obtainable.

Ingersoll-Rand Compressors have, built into them, a remarkable service-giving ability. Their dependability fully justifies the oft heard expression—"When you choose Ingersoll-Rand the risk in buying is past."

For constructional details ask for the catalogs listed.

"Imperial 14" Compressors

Vertical, single acting, single stage, belt driven. With or without motor and short belt drive. Bulletin 3039.

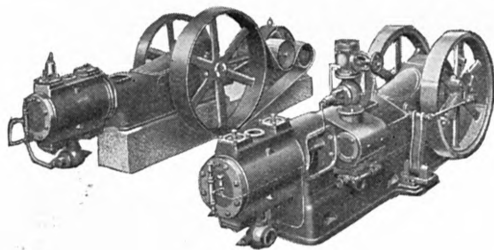


"IMPERIAL 14" COMPRESSORS 60-100 Lbs. Air Pressure

Piston Displace. cu. ft. per min.	Speed	B. H. P. 100 lb. press.	Floor Space	Height	Cooling
6	700	1.3	12x12"	16"	Air
6	700	1.3	12x12"	17 1/2"	Water Reser.
12.2	550	2.5	14x16"	23"	" "
23	500	4.35	17x30"	30"	" "
44	450	8	21x24"	46"	" "
44	450	8	21x24"	38"	Circ. Water.

Class "ER" and "FR" Compressors

Horizontal, double acting, single stage; belt, short belt with electric motor or piston valve steam engine driven.
Bulletins 3230 and 3131.



CLASS "ER" COMPRESSORS Belt Drive

Piston Displace. Cu. ft. per min.	Pressure lbs. per sq. in.	Speed R.P.M.	B. H. P. Inc. belt loss	Floor Space
28	100-150	500	4 -4.3	4'-7" x 1'-6"
44	20-100	500	3.8-6.5	4'-10" x 1'-6"
44	100-150	400	6.5-7	6'-2" x 1'-9 1/2"
64	45-100	400	7.3-9.3	6'-6" x 1'-9 1/2"
67	100-140	350	10-10	6'-6" x 1'-11"
92	45-100	350	11-13	6'-7" x 1'-11"
113	100-130	250	19-21	7'-11" x 2'-6 1/4"
145	65-100	250	21-24	8'-1" x 2'-6 1/4"
223	100-120	250	39-42	9'-9" x 3'-2 1/4"
324	50-100	250	43-57	9'-9" x 3'-2 1/4"
340	100-115	220	60-62	11'-0" x 4'-1 1/4"
464	40-100	220	53-74	11'-3" x 4'-1 1/4"

Data on standard machines for low pressures on request.

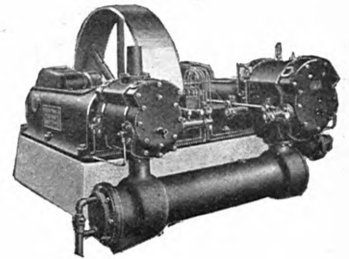
CLASS "FR" COMPRESSORS—STEAM DRIVE Air Pressures to 125 Lbs.—Steam Pressures 80-175 Lbs.

Piston Displace. Cu. ft. per min.	Pressure Lbs. per sq. in.	Speed R.P.M.	I. H. P. in steam cyl.	Floor Space
67	80-125	350	9-10	8'-2" x 2'-3"
92	55-100	350	11-13	8'-3" x 2'-3"
136	80-125	300	21-25	10'-2" x 2'-8"
173	65-100	300	24-29	10'-3" x 2'-8"
245	80-125	275	39-46	12'-0" x 3'-2"
355	60-100	275	51-62	11'-10" x 3'-2"
386	80-125	250	61-70	13'-8" x 4'-1"
528	45-100	250	66-88	13'-9" x 4'-1"

Data on standard machines for low pressures on request.

"Imperial XB" Duplex Units

Single and two-stage, belt driven machines. Can be had complete with short-belted electric motor.
Bulletin 3312.



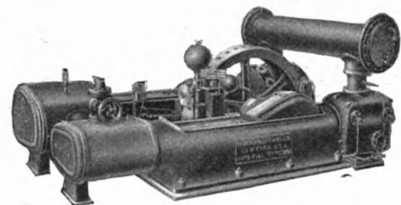
"IMPERIAL XB-2" COMPRESSORS 80-100 Lbs. Air Pressure

Piston Displace. Cu. ft. per min.	Speed R.P.M.	B. H. P. at 100 lbs.	Belt Wheel	Floor Space
203	225	36	54" x 8 1/2"	7'-8" x 5'-3"
327	210	37	60" x 10 1/2"	8'-4" x 5'-7"
446	210	76	72" x 12 1/2"	9'-9" x 6'-1"
599	185	104	84" x 16 1/2"	11'-0" x 7'-8"
888	170	152	96" x 20 1/2"	12'-6" x 8'-9"
1190	170	206	96" x 28 1/2"	13'-0" x 9'-2"
1482	155	254	108" x 31 1/2"	15'-1" x 9'-11"

Data on standard machines for low pressures on request.

"Imperial XPV" Steam Driven

Duplex, single and two stage air, simple and compound piston valve steam cylinders.
Bulletin 3033.



"IMPERIAL XPV" COMPRESSORS—STEAM DRIVE

Air Pressures 80-100 Lbs.—Steam Pressures from 80 Lbs. up

Piston Displace. Cu. ft. per min.	Speed R.P.M.	I. H. P. in steam cyl.		Floor Space
		80 lbs.	100 lbs.	
648	200	102	120	12'-0" x 7'-8"
940	180	148	174	13'-6" x 8'-9"
1260	180	200	235	14'-0" x 9'-2"
1531	160	242	284	17'-4" x 10'-3"

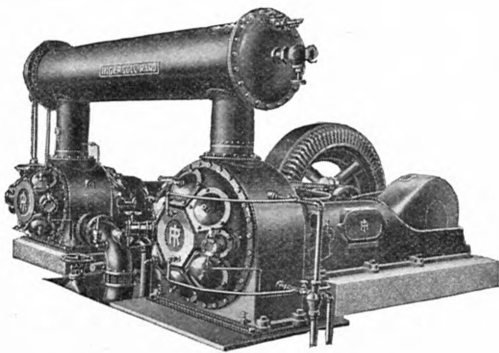
Data on standard machines for low pressures on request.

INGERSOLL-RAND CO., 11 BROADWAY, N. Y.

Compressors Hoists

Class "PRE" Electric Compressors

Duplex, single and two-stage, direct connected motor drive, automatic, 5 step, clearance control.



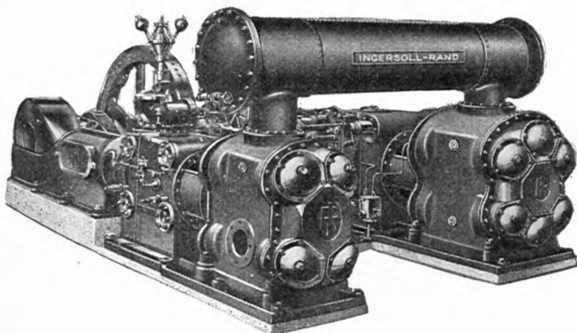
CLASS "PRE" COMPRESSORS
90-115 Lbs. Air Pressure

Piston Displace. Cu. ft. per min.	Pressure Lbs. per sq. in.	B. H. P. inc. belt loss	Floor Space
1173	100-115	176-187	12'-9" x 11'-9"
1302	90-100	201-210	12'-9" x 11'-9"
1433	100-115	228-242	14'-3" x 13'-0"
1574	90-100	251-264	14'-3" x 13'-0"
1873	100-115	284-302	15'-6" x 15'-6"
2033	90-100	309-324	15'-6" x 15'-6"
2480	100-115	390-414	17'-6" x 17'-9"
2678	90-100	417-438	17'-6" x 17'-9"
3190	100-115	497-528	19'-9" x 18'-0"
3633	90-100	567-596	19'-9" x 18'-0"
4482	100-115	671-712	21'-6" x 19'-0"
5011	90-100	752-787	21'-6" x 19'-0"
5378	100-115	886-940	29'-3" x 20'-0"
5967	90-100	972-1020	29'-3" x 20'-0"
6770	100-115	1024-1084	32'-0" x 24'-6"
7440	90-100	1120-1179	32'-0" x 24'-6"

Data for standard machines for lower pressures on request.

Class "ORC" Corliss Engine Driven

Duplex, single and two-stage air, simple and compound Corliss steam cylinders.



CLASS "ORC" COMPRESSORS—STEAM DRIVE
Air Pressures 90-125 Lbs.—Steam Pressures 90-180 Lbs.

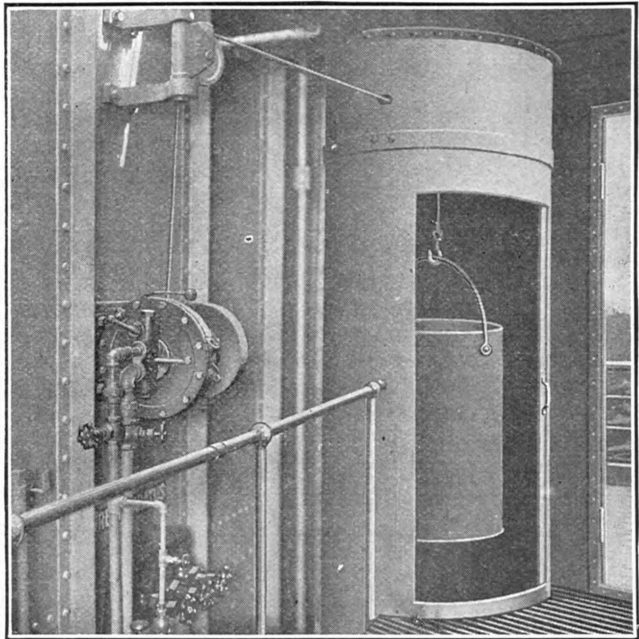
Piston Displace. Cu. ft. per min.	Pressure Lbs. per sq. in.	I. H. P. in steam cyl.	Floor Space
2376	110-125	413-437	23'-11" x 15'-6"
2550	90-100	419-439	23'-11" x 15'-6"
2847	110-125	475-503	26'-5" x 17'-0"
3242	90-100	516-540	26'-5" x 17'-0"
3906	110-125	623-659	28'-8" x 19'-0"
4384	90-100	670-702	28'-8" x 19'-0"
5153	110-125	901-953	33'-1" x 19'-0"
5715	90-110	941-987	33'-1" x 19'-0"
6650	110-125	1109-1168	39'-8" x 21'-8"
7310	90-100	1151-1207	39'-8" x 21'-8"

Data for standard machines for lower pressures on request.

"Little Tugger" Ash Hoist

A compact, self contained drum hoist that can be operated on either steam or compressed air. It is extensively employed as an ash hoist aboard ship and has decided advantages for such service. It economizes space, has no projecting levers, fly wheels or reciprocating parts and will hold its load at any point without application of the brake. It is self lubricated, has renewable bushings for all bearings and is a first class machine in all respects.

Bulletin 4333.



"Little Tugger" Installed on the Bulkhead of an Engine-room Deckhouse, Hoisting Ash Buckets Through Ventilator

"Little Tugger" in the Shipyard

In and around the shipyard are a hundred and one jobs of hoisting, handling and hauling that can well be left to "Little Tuggers." Erecting and tear-out scaffolding, hauling timbers, handling light plates, placing light machinery, cleaning holds and the like are accomplished at least cost when hand work is abandoned and "Little Tuggers" installed. Models for wire and manilla rope.

Bulletin 4333.

"LITTLE TUGGER" HOISTS

No.	Capac. Lbs.	Rope Speed Ft. per min.	Rope Capacity Feet	Weight	Inlet Con- nection
1-H Air operated	1000	85	700- $\frac{1}{4}$ " wire 450- $\frac{3}{8}$ " wire	285	$\frac{3}{4}$ "
1-HS Steam operated	1000	85	700- $\frac{1}{4}$ " wire 450- $\frac{3}{8}$ " wire	285	$\frac{3}{4}$ "
11-H Air operated	600	85	300- $\frac{3}{8}$ " manll.	358	$\frac{3}{4}$ "
11-HS Steam operated	600	85	300 $\frac{3}{8}$ " manll.	358	$\frac{3}{4}$ "

INGERSOLL-RAND CO., 11 BROADWAY, N. Y.